REMARKS/ARGUMENTS

The January 17, 2003 Office Action has rejected claims 16 and 21 – 27 under 35 U.S.C. § 112. In light of the amendments above, the enclosed Declaration, and the arguments below, Applicants respectfully request reconsideration.

35 U.S.C. § 112, Second Paragraph Rejections

The Office Action has rejected claims 16 and 21 – 27 under 35 U.S.C. § 112, second paragraph as being indefinite.

Applicants respond to the Examiner's statements at the bottom of page 2 by noting that their invention is not a research proposal for assessing whether the autoantibody exists in serum sample of a patient and if it does, then figuring out if it could be used as a marker for cancer. In the specification, and in prosecution of related patent applications, Applicants have described and characterized the usefulness of examining patient tissue for the presence of CRD-BP. The claims of this application are designed to examine that patient tissue for the presence of anti-CRD-BP antibodies. Applicants note their comments below and in the enclosed Declaration by Dr. Jeffrey Ross. Applicants are unclear whether the Examiner is requiring Applicants to amend their claims in response to this clarification and await the Examiner's guidance.

Claims 22 and 23 are rejected as reciting "antibody." Applicant has amended claims 22 and 23 to recite anti-CRD-BP antibody.

35 U.S.C. § 112, First Paragraph

Claims 16 and 21 – 27 are rejected under 35 U.S.C. § 112, first paragraph. The Examiner opines that "it is not clear whether presence of an autoantibody of CRD-BP is involved in development of cancer *in vivo*." (See page 3, final paragraph).

Applicants note that they are not describing autoantibodies to CRD-BP as involved in the development of cancer. They are interested in CRD-BP antibodies as diagnostic of cancer and direct the Examiner to the specification for a description of the presence of the CRD-BP protein as a cancer diagnostic. (E.g., see page 15, beginning with line 10.)

Additionally, Applicants direct the Examiner's attention to the enclosed Declaration where Inventor Jeff Ross demonstrates that at least some cancer patients do make antibodies that react with the CRD-BP. Dr. Ross describes a comparison of sera from a 65 year old female who did not have cancer and two women with breast cancer. In paragraph 5, Dr. Ross describes strong reaction between serum from breast cancer patient #15356 and the CRD-BP.

A Petition and Fee for Two Months Extension of Time is enclosed. No other fees are believed necessary to enter this amendment. However, if any fees are necessary please charge Deposit Account 17-0055.

Respectfully submitted,

Jeffrey Ross

By: _____

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6/25/03

I hereby certify that this correspondence is being deposited with the United States Postal Services on the date set forth below as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231.
Date of Signature and Deposit: 6/11/03

Jean C. Baker, Reg. No. 35,433

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.:	09/873,637	Client Docket No.:	P01399US
Applicant:	Jeffrey Ross		
Filed:	June 4, 2001		
Title:	C-MYC CODING REGION DETERMINANT-BINDING PROTEIN (CRD-BP) AND ITS NUCLEIC ACID SEQUENCE		
TC/A.U.:	1642		
Examiner:	M. Yu		
Docket No.:	960296.98164		

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF JEFFREY ROSS

Sir:

I, Dr. Jeffrey Ross, declare:

1. I am the inventor of the above-identified application. I am a Professor in the Department of Oncology, at the McArdle Laboratory for Cancer Research at the University of Wisconsin. I have been a faculty member at the University of Wisconsin for the past 29 years.

2. I have been asked to review the Examiner's Office Action dated January 13, 2003 and respond to the Examiner's rejection of all pending claims and the statement "it is not clear whether presence of an autoantibody to CRD-BP is involved in development of cancer *in vivo*."

3. In the paragraphs below, I describe an experiment designed to determine whether patients with breast cancer make antibodies against the CRD-BP. I note that I am determining whether the antibodies are present as a diagnostic parameter in the following

ways: as a diagnostic marker, as a measure of tumor progression or regression, and/or as a measure of response of the patient's tumor to therapy. I am not determining whether the antibodies are involved in the development of the cancer. I conclude that some cancer patients do produce antibodies against CRD-BP.

4. Here is my strategy and methods:

(a) Two sets of proteins were electrophoresed in an SDS gel. One protein was recombinant CRD-BP (test). The other protein was bovine serum albumin or BSA (control). The BSA was mixed with a set of blue-stained proteins to serve as internal size markers.

(b) The proteins in the gel were transferred to a nitrocellulose membrane. The membrane was stained, and the CRD-BP and BSA protein bands were visualized as red lines (Fig. 1, Panel A). Prestained molecular mass markers are also visible.

(c) The membrane was divided into three sections. Each section contained one lane with the CRD-BP and a second lane with BSA.

(d) Each membrane section was then incubated with a different human serum. One serum was from a 65 year old female who did not have cancer. The other two sera were from women with breast cancer.

(c) The reaction of anti-CRD-BP antibody in human serum with CRD-BP on the membrane was visualized HRP-conjugated goat antihuman IgE and using enhanced chemiluminescence.

5. The attached Fig. 1 describes the results of my experiment.

(a) No reaction between the normal serum (#15320) and the CRD-BP (left).

(b) Strong reaction between serum from breast cancer patient #15356 and CRD-BP (middle).

(c) Minimal reaction between serum from breast cancer patient #15390 and the CRD-BP (right).

(d) None of the sera reacted with the BSA control protein, validating the reaction with the CRD-BP.

Please note that only 40 – 60% of women with breast cancer express the CRD-BP. Therefore, we would not expect to detect anti-CRD-BP antibody in sera from all breast cancer patients.

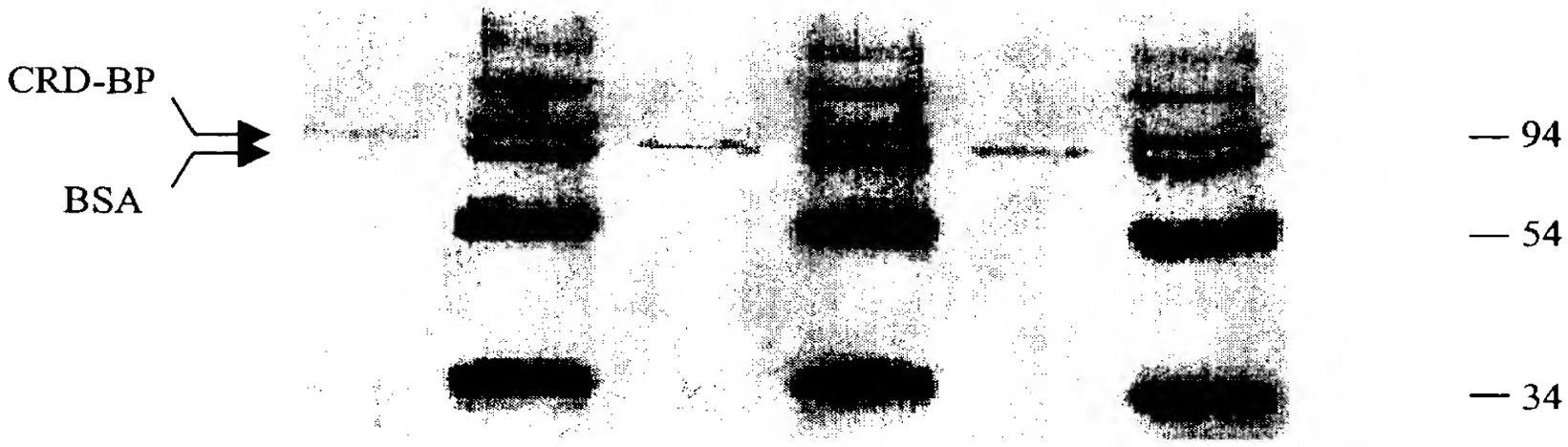
6. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the above-identified application or any patent issuing thereon.

Dated: 6/6/03

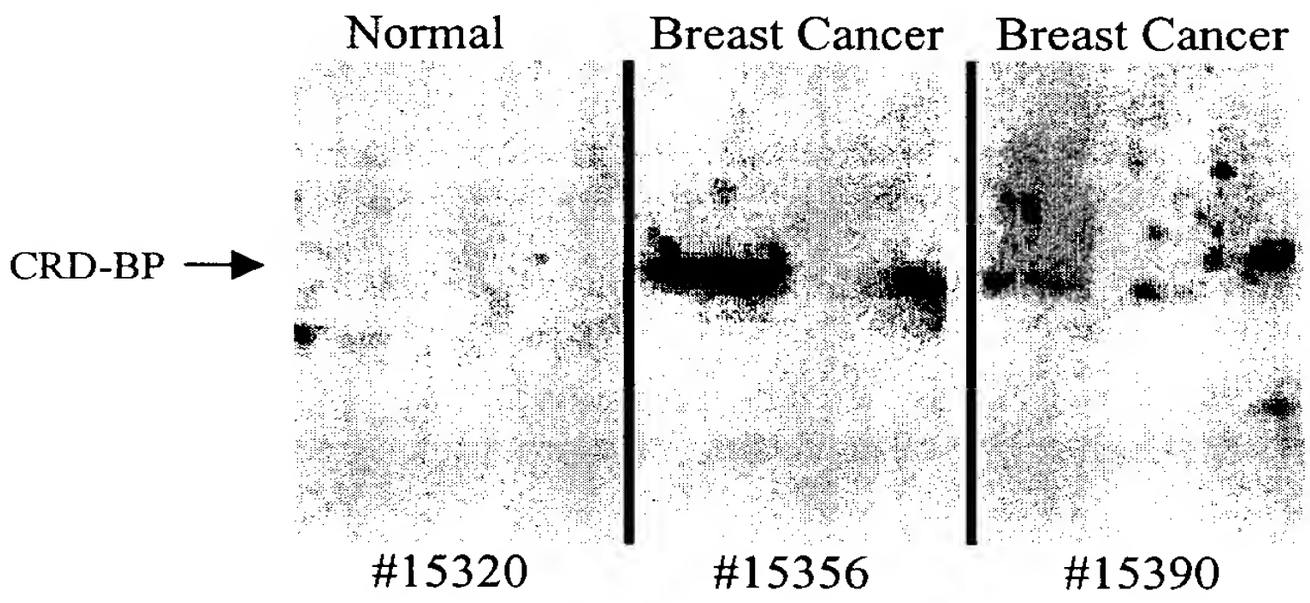
Jeffrey Ross

PRESENCE OF ANTI-CRD-BP ANTIBODY IN SERUM OF BREAST CANCER PATIENT: WESTERN BLOTTING

A. Membrane stained with Ponceau S. Prestained size markers = blue bands. BSA = bovine serum albumin.



B. Membrane probed with serum, as indicated.



15320 = 65 year old white female with no known tumor.

15356 = 58 year old white female with breast cancer: a high grade, invasive comedo that is estrogen receptor negative, +/- for progesterone receptor, and, negative for HER-2 by immunohistochemistry.

15390 = 36 year old female with breast cancer: ductal carcinoma, but non-invasive. (Would be interesting to know if she had a mutation in a BRCA gene.)

FIG. 1